

**From:** Kelley Chase/R3/USEPA/US  
**Sent:** 6/14/2012 10:40:47 AM

**To:**  
**CC:**  
**Subject:** Re: EXTERNAL: 3 File 1205012 FINAL R33992 06 06 12 1230.pdf

**Ex. 4 - CBI**

OK. Thanks for following up on this. I appreciate all your help.

Kelley A. Chase  
EPA Region 3  
On-Scene Coordinator  
215-814-3124 office  
267-273-8859 cell

**From:**  
**Sent:** 06/14/2012 02:25 PM GMT  
**To:** Kelley Chase  
**Subject:** FW: EXTERNAL: 3 File 1205012 FINAL R33992 06 06 12 1230.pdf  
Kelley,

**Ex. 4 - CBI**

This is what I sent back to Cindy. If there is no problem with the J+ qualifier, then we can proceed. I know that she was opposed to the J+ qualifier previously so I wanted to respond to her only about her request.

**Ex. 4 - CBI**

**From:**  
**Sent:** Thursday, June 14, 2012 10:23 AM  
**To:** 'Cynthia Caporale'  
**Subject:** RE: EXTERNAL: 3 File 1205012 FINAL R33992 06 06 12 1230.pdf

**Ex. 4 - CBI**

Cindy,

Regarding the second comment "a consensus decision to use a "J" and elevate reporting limits...", I was referring to the comments R3 had on using the "J+" flag for TDS (SERAS-172-DSR-030712\_Dimock\_16 "Qualifying the samples that have results <10X the TDS value in FB06 as estimated high (J+) is not recommended unless an explanation in the final report includes values of the method blank, etc. Elevating the reporting limit to the value present in the sample and qualifying non-detect would be preferred since the J+ qualifier does not provide enough indication of the amount of blank contamination."

Whereas this J+ qualifier is now being used to qualify a second source calibration verification and a continuing calibration verification (>110%), the same type of question arises if a "J" is reported without any indication of whether the results were high or low. If you have no objection to using a J+ qualifier, then this becomes a non-issue. I know that you felt strongly about not using the J+ before and just wanted to be consistent.

If you have any other questions, give me a call.

**Ex. 4 - CBI**

**From:** Cynthia Caporale [mailto:Caporale.Cynthia@epamail.epa.gov]  
**Sent:** Thursday, June 14, 2012 9:57 AM

To: **Ex. 4 - CBI**

Cc: Kelley Chase; Robin Costas; **Ex. 4 - CBI** Joe Dorsey

Subject: RE: EXTERNAL: Fw: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

Kelley and **Ex. 4 - CBI**

When a bias is suspected for a result we would use an "L" (biased low) or "K" (biased high) qualifier, which after undergoing data validation by NFG would translate to the "J-" or "J+" flags. In this situation the analyst is indicating that the results are estimated without a bias since the QC recoveries slightly exceeded criteria. The decision was to not apply a bias to all associated results based on the one outlier. Also note that the criteria used by our lab is tighter than that used in the NFG (70-130%).

However, we do not object to changing the "J" to "J+" if that is appropriate for the project-level assessment.

I need more clarification on the second comment below - "....a consensus decision to use a "J" and elevate reporting limits...." - since I thought this approach is used for low recoveries of spiked QC samples not those that have high recoveries.

Cindy

Cynthia Caporale, Chief  
OASQA Laboratory Branch  
U.S. EPA Region III  
Environmental Science Center  
Fort Meade, MD  
(410) 305-2732  
Fax: (410) 305-3095

From: **Ex. 4 - CBI**

To: Kelley Chase/R3/USEPA/US@EPA, Cynthia Caporale/ESC/R3/USEPA/US@EPA

Cc: Robin Costas/ESC/R3/USEPA/US@EPA, **Ex. 4 - CBI**

**Ex. 4 - CBI**

Date: 06/13/2012 04:16 PM

Subject: RE: EXTERNAL: Fw: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

Kelley and Cindy,

I have commented on the responses provided by EPA R3. SERAS routinely uses the "J+" flag that indicates that the result is estimated but may be biased high. Based on the response to item #3 below, EPA R3 does not use the "J+" qualifier.

During the past reviews, a consensus decision to use a "J" and elevate reporting limits was agreed upon by EPA R3 and SERAS personnel since it was a viable option. In this instance, there is no reporting limit to elevate.

Since the EPA R3 analytical report does not provide information on the bias, the J+ qualifier seems to be appropriate. If EPA R3 does not want to use the J+ qualifier, then the case narrative of the report could be changed to include the bias and the flags could remain as a "J". This way we will be consistent with past qualifications.

Let me know what you think.

**Ex. 4 - CBI**

From: Kelley Chase [mailto:Chase.Kelley@epamail.epa.gov]

**Sent:** Wednesday, June 13, 2012 11:25 AM

**To:** [REDACTED] Ex. 4 - CBI

**Cc:** Cynthia Caporale; Robin Costas

**Subject:** EXTERNAL: Fw: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

Hi [REDACTED] Ex. 4 - CBI

Please review the attached responses from R3 and let us know if you have any additional questions.

If not, please follow-up with [REDACTED] Ex. 4 - CBI regarding entering final qualifiers into Scribe.  
THANKS !

----- Forwarded by Kelley Chase/R3/USEPA/US on 06/13/2012 11:13 AM -----

**From:** Cynthia Caporale/ESC/R3/USEPA/US

**To:** "Kelley Chase" <[Chase.Kelley@epamail.epa.gov](mailto:Chase.Kelley@epamail.epa.gov)>

**Date:** 06/13/2012 11:10 AM

**Subject:** Fw: Fw: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

Here's our response.

----- Original Message -----

**From:** Robin Costas

**Sent:** 06/13/2012 11:03 AM EDT

**To:** Cynthia Caporale

**Subject:** Re: Fw: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

robin

Robin Costas, Chemist

EPA Region 3, OASQA

Ft. Meade, Md 20755

410-305-2659

**From:** Cynthia Caporale/ESC/R3/USEPA/US

**To:** Robin Costas/ESC/R3/USEPA/US@EPA, Joe Dorsey/ESC/R3/USEPA/US

**Date:** 06/13/2012 10:44 AM

**Subject:** Fw: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

This is the draft email to send out but I think more explanation is needed for at least #1.

Cynthia Caporale, Chief

OASQA Laboratory Branch

U.S. EPA Region III

Environmental Science Center

Fort Meade, MD

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Fax: (410) 305-3095

----- Forwarded by Cynthia Caporale/ESC/R3/USEPA/US on 06/13/2012 10:44 AM -----

**From:** Cynthia Caporale/ESC/R3/USEPA/US

**To:** [REDACTED] Ex. 4 - CBI

**Cc:** [REDACTED] Ex. 4 - CBI, Gary Newhart/CI/USEPA/US@EPA, John Gilbert/CI/USEPA/US@EPA, Kelley Chase/R3/USEPA/US@EPA, [REDACTED] Ex. 4 - CBI

[REDACTED] Ex. 4 - CBI, Robin Costas/ESC/R3/USEPA/US, Joe Dorsey/ESC/R3/USEPA/US

Date: 06/13/2012 08:52 AM

Subject: Re: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12 1230.pdf

The report on the Dimock Verification/Completeness Check for file 1205012 FINAL R33992 was reviewed and below are the responses for your consideration.

File 1205012 FINAL R33992 06 06 12 1230.pdf

1. All samples for lithium in project #DAS R33992 are reported down to a Reporting Limit of 25µg/L; however, the method blanks are reported to 200µg/L. If the method blanks were not analyzed with the same low standard as the samples, then the sample RLs should be raised to the concentration reported for the method blanks. Alternatively, if the samples and blanks were analyzed using the same low standard, then the analytical report needs to be corrected to reflect the correct method blank RLs.

**Response: All of the lithium quality control samples were reported using the 25ug/L Reporting Limit. The LIMS program used for reporting has a "bug" in the system which sometimes doesn't allow us to edit the Reporting Level to the correct value. This problem is being worked on. A corrected report is available if requested.** No qualifications are required.

2. The case narrative states that the detectable results for uranium were qualified estimated "J" due to a quality control sample outside of acceptance limits. Based on the information supplied in the analytical report, it is unclear what QC sample is outside of acceptance limits. Please clarify with the appropriate recoveries.

**Response: The second source calibration verification and continuing calibration verification QC sample failed high for uranium (greater than 110%)** . Based on SERAS data validation guidelines, data for uranium for samples HW04\_R2, HW04-F\_R2, HW07\_R2, HW07-F\_R2, HW08a\_R2 and HW08a-F\_R2 should be qualified estimated high (J+).

3. The case narrative states that sample results for aluminum, boron, lead and lithium for sample HW06\_R2 were qualified estimated "J" due to a quality control sample outside acceptance limits. No QC information is available for boron for Batch BE23003. Based on the information supplied in the analytical report, the LCS recovery for lithium is 125%, which is outside the 85-115% range. In addition, the RPD for aluminum exceeds the 20% criterion. Based on this information, the lithium result for sample HW06\_R2 should be qualified estimated high (J+) and the aluminum result estimated (J). It is unclear what QC sample is outside of acceptance limits for boron and lead.

Please clarify with the appropriate recoveries.

**Response: We normally do not assign estimated high (J+) based on qc recoveries. The qualifiers for lithium and aluminum are correct (J). The J was applied to lead and boron because the second source calibration verification was recovered at 112% and 106% respectively (acceptance window is 95 to 105%).** Based on SERAS data validation guidelines, data for lithium, lead and boron for sample HW06\_R2 should be qualified estimated high (J+).

Aluminum for this sample should be qualified estimated (J).

4. For sample IDW-01, it is unclear what set of QC should be used to qualify samples. Please clarify that this sample was analyzed with Batch BE22502.

**Response: This sample was analyzed with Batch BE3003 for ICPMS 200.8 and BE22502 for ICP 200.7.** Based on this information, this reviewer agrees with the "J" flag applied to the silver result.

5. The following samples had analytes that exceeded the federal maximum contaminant levels (MCLs): Aluminum for HW06\_R2; iron for HW06\_R2; and manganese for HW07\_R2 and HW08a\_R2 and HW08-F\_R2. IDW-01 is not a drinking water sample so any concentrations exceeding the MCLs are not included in the list.

**Response: No response needed.** No qualifications are required.

6. There were several non-typical metals that were detected in some of the drinking water samples for which no MCLs are available: Boron for HW06\_R2 and HW06-F\_R2, uranium for

HW04\_R2, HW04-F\_R2, HW07\_R2, HW08a\_R2 and HW08a-F\_R2; and lithium for HW06\_R2 and HW06-F\_R2.

**Response: No response needed.** No qualifications are required.

7. It is assumed that all required instrument QC in the method was run (with the exceptions noted in the case narrative) and was within the criteria listed in the EPA R3 SOPs since this information is not available in the laboratory report.

**Response: Correct** No qualifications are required.

Cynthia Caporale, Chief  
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Environmental Science Center  
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(410) 305-2732  
Fax: (410) 305-3095

From: Ex. 4 - CBI

To: Cynthia Caporale/ESC/R3/USEPA/US@EPA, Kelley Chase/R3/USEPA/US@EPA

Cc: Gary Newhart/CI/USEPA/US@EPA, John Gilbert/CI/USEPA/US@EPA, Ex. 4 - CBI

**Ex. 4 - CBI**

Date: 06/11/2012 02:12 PM

Subject: Verification/Completeness Check for Dimock R3 File 1205012 FINAL R33992 06 06 12  
1230.pdf

.....is attached for your review and consideration. I made a correction on the footer.

**Ex. 4 - CBI**

Lockheed Martin  
Scientific, Engineering, Response and Analytical Services (SERAS)

**Ex. 4 - CBI**

[attachment "SERAS-172-DSR-061112\_59.docx" deleted by Cynthia Caporale/ESC/R3/USEPA/US]